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REPORT ON  
TECHNICAL ADVISORY SERVICES,  
Fiscal Year 1965

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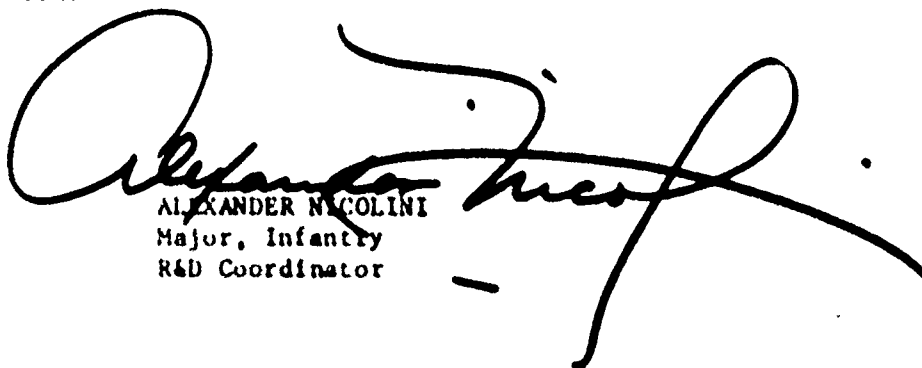
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ALEXANDER NICOLINI  
Major, Infantry  
R&D Coordinator

(6)  
**REPORT ON**  
**TECHNICAL ADVISORY SERVICES.**

**Fiscal Year 1965.**

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(11) Dec 1965  
The George Washington University  
**HUMAN RESOURCES RESEARCH OFFICE**  
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## INTRODUCTION

The annual report of Technical Advisory Services (TAS) is prepared to document those HumRRO activities considered to be of a consultative nature not requiring or using the customary Work Program or Exploratory Study structure. These services are primarily in response to Army requests for information or advice on matters about which there exists a body of knowledge or on which a "best available" answer is needed within a limited time.

HumRRO established this category of activity because of the increasing urgency of Army requests for guidance on matters not necessarily related to ongoing research efforts. Originally, the Army sought assistance on implementation procedures for completed projects that had been terminated as research Tasks. The TAS category was a convenient mechanism for accounting for such advice. As HumRRO's technical knowledge and experience in human factors grew, more requests were received for assistance in a wider variety of matters. The effectiveness of this program has led to the formal planning of one to two man-years on TAS for each HumRRO Division per year.

The Director of Research of the Division is responsible for determining what activities will be accepted in this category. The decision is based on the Division TAS load and the availability of appropriate and knowledgeable staff. The reports or findings are made to the requester only. Further distribution is considered only with the agreement of the original requester. If the information gathered is of general interest, it may be reported in the HumRRO publication series. Initially, however, it is prepared in the form of a memo or a Consulting Report.

Occasionally, a major TAS activity will require the involvement of more than one Division. In these cases, the Director's Office (DO) coordinates such efforts and will have Division staff assigned to DO on a temporary basis.

The organization of this report reflects the basic Divisional emphasis. Whenever possible a research Task relationship is indicated, since many requests for assistance come from the Army's awareness of the Division's research effort on a specific subject. However, most items do not indicate a Task relationship. In these instances, the Division Director did not identify the problem, or the data compiled, as being closely allied to an ongoing research activity.

On all TAS activities, the requesting agencies have been noted to show who is utilizing the human factors information that is provided.

The staff participating in each service is recorded to identify those individuals within HumRRO who are knowledgeable in a particular area. The month(s) in which the advice was given, along with the time expended, is also indicated to document for fiscal purposes HumRRO's involvement in TAS.

Ten percent of the basic man-years of the HumRRO staff, or 2341 man-days, were committed to TAS in FY 1965 for the Army or other Department of Defense agencies. This investment reflects the averagetime spent in consultative service during the last three years and should be a gauge of the FY 1966 expenditure.

## DIRECTOR'S OFFICE

1. One of the major efforts in TAS was a comprehensive study resulting in Technical Report 65-2, Human Factors in Tactical Nuclear Combat. Personnel accomplishing this work were assigned to the Director's Office from Division No. 1.

Requesting agency: U.S. Army Combat Developments Command  
Personnel: Dr. Vineberg, Miss Bloom  
Dates: Continued from FY 64-Jan 65  
Days expended: 110

2. Research scientists were assigned to the Director's Office from Divisions 1 and 2 to participate in a classified field study conducted by the Seventh Army. Activities included data collection and analyses and preparation of a report to be included in the Army report of the field study.

Requesting agency: Assistant Chief of Staff for Force Development,  
Department of the Army  
Personnel: Mr. Schwartz, Dr. Hunter, Mr. Hibbits  
Dates: Mar-May 65  
Days expended: 104

3. A research scientist assigned to the Director's Office from Division No. 1 served on a special Army committee to prepare an historical review of the training and use of marginal personnel.

Requesting agency: Office, Under Secretary of the Army  
Personnel: Dr. Vineberg  
Dates: Oct-Dec 64  
Days expended: 46

4. Assistance was provided in the overall design and preparation of a recruit attitude questionnaire based upon related work done under Tasks TRANSITION and NCO.

Requesting agency: U.S. Continental Army Command  
Personnel: Dr. Smith, Capt. Shepherd (USN Ret.)  
Dates: Mar-Apr 65  
Days expended: 20

5. A research scientist assigned to the Director's Office from Division No. 1 participated in a study outlining the kind of inquiry desirable in undertaking analyses of the motivational and career patterns and problems of officers and enlisted men.

Requesting agency: Office, Chief of Staff, Department of the Army  
Personnel: Dr. Vineberg  
Dates: Feb-Mar 65  
Days expended: 15

6. Assistance was provided in the development of the research plan in support of the Special Training and Enlistment Program (STEP).

Requesting agency: USCONARC  
Personnel: Dr. Smith, Capt. Shepherd (USN Ret.)  
Dates: Sep-Dec 64  
Days expended: 15

7. Assistance is being given in the review of Army Subject Schedules.

Requesting agency: USCONARC  
Personnel: Dr. Smith, Capt. Shepherd (USN Ret.)  
Dates: Jul 64-Jun 65 continuing  
Days expended: 10.5

8. Emergency Operations Center activities were observed and analyzed.

Requesting agency: USCONARC  
Personnel: Dr. Smith  
Date: Apr 65  
Days expended: 2

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## DIVISION NO. 1 (System Operations)

1. Task JOBTRAIN personnel assisted USASESCS in the preparation of course material for the Army test of the JOBTRAIN experimental course.

*Requesting agency:* U.S. Army Southeastern Signal School, USCONARC  
*Personnel:* Dr. Shriver, Mr. Trexler, Mr. Braden  
*Dates:* Jul 64-Apr 65  
*Days expended:* 133

2. Assistance was given on the human factors critique in a DA Staff Paper concerning the TECHSTAR concept.

*Requesting agency:* Human Factors and Operations Research Division  
*Personnel:* Dr. MacCallin, Mr. Hibbita  
*Date:* Jun 65  
*Days expended:* 5.5

3. HumRRO was represented on the USCONARC team studying the causes of the high attrition rate in electronics maintenance courses.

*Requesting agency:* USCONARC  
*Personnel:* Dr. Lyons  
*Dates:* May-Jun 65  
*Days expended:* 7.5

4. A Nike X Task and Skill Analysis was reviewed.

*Requesting agency:* Human Factors and Operations Research Division  
*Personnel:* Dr. McKnight  
*Date:* Nov 64  
*Days expended:* 4

5. Army Subject Schedules 10-942 and 10-943 were reviewed in an analysis of MOS technical training of meat cutters and bread bakers.

*Requesting agency:* USCONARC  
*Personnel:* Mr. Hayes  
*Dates:* Nov-Dec 64  
*Days expended:* 3

6. The training exercises conducted by the Emergency Operations Center at USCONARC were evaluated.

*Requesting agency:* USCONARC  
*Personnel:* Dr. Fink  
*Dates:* Mar-Apr 65  
*Days expended:* 3

7. Assistance was provided to the American Institutes for Research in the Behavioral Sciences on a project of CRDL on the effects of incapacitating chemical agents.

*Requesting agency:* U.S. Army Chemical Research and Development Laboratories  
*Personnel:* Dr. Lycna, Dr. McKnight  
*Dates:* Mar-Apr 65  
*Days expended:* 2

8. Task MOSAIC personnel provided guidance on determining training requirements for electronics maintenance jobs in STRATCOM.

Requesting agency: U.S. Army Strategic Communications Command  
Personnel: Dr. Shriver, Mr. Trexler  
Date: May 65  
Days expended: 1

9. Task FORECAST staff members continued to assist the U.S. Navy in applying FORECAST principles to LORAN training. This TAS project resulted in Technical Report 65-3, Application and Test of the FORECAST Concept of Electronics Maintenance on Navy LORAN Equipment.

Requesting agency: Commander, Training Command, U.S. Atlantic Fleet,  
U.S. Navy  
Personnel: Dr. Lyons, Dr. Shriver  
Dates: Continued from FY 64-May 65  
Days expended: 2.5

## DIVISION NO. 2 (Armor)

1. In response to a request for advice on the improvement of USAARMS Device 17-AR-1, Platoon Leader Trainer, Task UNIT personnel attended conferences, demonstrations, and classes. A report with recommendations for improving the tactical trainer and its use was submitted to the Director of Instruction.

**Requesting agency:** U.S. Army Armor School  
**Personnel:** Dr. Baker, Lt. Col. Cook (Ret.), Mr. Wernick  
**Dates:** Jul-Nov 64  
**Days expended:** 34

2. A Consulting Report, "A Suggested General SOP for the Preparation of Equipment Serviceability Criteria," was written and submitted to USAMB and other interested agencies.

**Requesting agency:** Prepared for the U.S. Army Maintenance Board  
**Personnel:** Dr. Willard, Dr. Whitmore, Mr. Bettrick  
**Dates:** Jul-Aug 64  
**Days expended:** 33.5

3. Considerable and varied TAS was provided for the Shillelagh missile system:  
a. A continuing effort has been made on five tracking studies relevant to the unique training requirements for this missile. Work on the report will continue in FY 66.

b. To identify training requirements on which to base a training program and devices, engineering development firings were observed at White Sands Missile Range, N. Mex.

c. The draft Army Subject Schedule, MOS Training and Refresher Training for Armor Crewman (MOS 131.0), was reviewed to determine which training requirements for the Shillelagh system are already covered and which need to be incorporated. This activity stemmed from a conference with G-3 USATC Armor on integrating the anticipated training requirements for Shillelagh in the draft subject schedule for Armor Advanced Individual Training.

d. The U.S. Army Armor Board's critique of the Aeronutronic Division of Philco Corp. proposal for Engineering Test/Service Test (ET/ST) gunner training was discussed with Board and Armor School representatives. In a related conference, Shillelagh training device tests were discussed, and training problem areas depicted in movies of ET firings were reviewed.

e. Visitors were provided information on requirements for a small tracking trainer for Shillelagh gunnery and a list of Army agencies that have information on specifications and measuring techniques for ammunition gas analysis (needed for tests of the system's turret).

f. Shillelagh performance requirements were discussed with visitors from Fort Sill and Seventh Army.

**Requesting agencies:** USCONARC (a,b); U.S. Army Training Center, Armor (c,e); Cadillac Gage Co. (d); U.S. Army Armor Board (e); Fort Sill, Seventh Army (f)  
**Personnel:** Dr. Haggard  
**Dates:** Mar-Jun 65 continuing (a); Sep 64 (b); Aug-Sep 64 (c); Aug 64-Jan 65 (d); Nov 64 (e); Aug 64 (f)  
**Days expended:** 31.5 (a); 10 (b); 3.5 (c); 1 (d); 1.5 (e); .5 (f)

4. A review was made of Army Subject Schedule 5-622, MOS Technical Training of Engineer Equipment Repairman.

Requesting agency: USCONARC  
Personnel: Dr. Whitmore  
Date: Nov 64  
Days expended: 7

5. A staff member maintained contact with a series of agencies on TAS. Brief meetings and discussions were held on:

- a. Training methods and simulation procedures that may be related to the use of the CINTAC simulator for missile gunners.
- b. Anthropometric data collected for use in evaluating equipment for test vehicles.
- c. A review of the state of knowledge on target detection and the payoff of programing new research in the area.
- d. Specification of available ear protection devices for use in test firing.
- e. A proposed device for use in target designation.
- f. Proposed studies of operator-induced error in equipment systems.
- g. Requirements for studies of a tank weapon system that has been proposed to USACDC Armor.
- h. Data collected concerning target detection probabilities at various ranges for use in computerized military engagement simulation.
- i. Possible increase in hit probability for antiaircraft fire through the use of tracer ammunition.

Requesting agencies: U.S. Army Training Center, Armor (e); U.S. Army Armor Board (b); USCONARC (c); U.S. Army Armor School (d); U.S. Army Combat Developments Command (e); U.S. Army Maintenance Board (f); Ohio State University (g); U.S. Army Combat Developments Command, Armor Agency (h); U.S. Army Materiel Command (i)  
Personnel: Dr. Heggerd  
Dates: Aug 64 (e); Dec 64 (b); Jan 65 (c,d); Feb 65 (e); Mar 65 (f,g); Jun 65 (h,i)  
Days expended: 7.5 (.5 (a,b,c,d,e,f); 1.5 (g); 2 (h); 1 (i))

6. Task UNIT personnel also:

- a. Advised on the preparation of a unit test related to the Tank Platoon Combat Readiness Check.
- b. Provided assistance in the preparation of a Small Device Requirement for the Miniature Armor Battlefield (MAB).
- c. Furnished technical advice to USCONARC on the Army's implementation of MAB.

Requesting agencies: U.S. Army Enlisted Evaluation Center (a); U.S. Army Armor School (b); USCONARC (c)  
Personnel: Dr. Baker, Dr. Willard  
Dates: Dec 64 (a); Jun 65 (b); May 65 (c)  
Days expended: 6.5 (1 (a); 1 (b); 4.5 (c))

d. Provided information on the Armored Cavalry Trainer (ACT) for officers from Canada, Belgium, and Sweden.

Requesting agency: U.S. Army Armor Center  
Personnel: Lt. Col. Cook (Ret.)  
Dates: Mar-Jun 65  
Days expended: 1

7. Advice on the design and renovation of the classroom facilities and training program was provided to III Corps NCO Academy personnel. Plans for the construction and use of a classroom communicator were developed and submitted.

Requesting agency: III Corps, Fourth U.S. Army  
Personnel: Dr. Baker, Mr. Schwartz  
Date: Feb 65  
Days expended: 6

8. Advice was provided on the human factors problems involved in using the underwater fording kit, which is to be applied to the Main Battle Tank.

Requesting agency: U.S. Army Armor School  
Personnel: Dr. Willard, Dr. Cannon, Mr. Drucker  
Date: Nov 64  
Days expended: 5

9. Discussions about human factors research programs were held with personnel of the U.S. Main Battle Tank program.

Requesting agency: U.S. Program Manager, U.S. Army/Federal Republic  
of Germany Tank Development Program  
Personnel: Dr. Haggard, Dr. Willard  
Date: Dec 64  
Days expended: 1

10. Advice was provided on the application of programed instruction in training and on factors to be considered in applying such instruction.

Requesting agency: 1st Training Brigade, U.S. Army Training Center, Armor  
Personnel: Dr. Miller  
Date: Jul 64  
Days expended: 2

11. Information was provided on potential performance problems associated with high noise levels in aircraft. In addition, discussions were held on the effects of long flights on troops' subsequent performance.

Requesting agency: U.S. Army Combat Developments Command,  
Combined Arms Group  
Personnel: Dr. Haggard, Dr. Cannon  
Date: Feb-Mar 65  
Days expended: 2

12. A review was made and draft answer prepared of the Office of Personnel Operations' position on the new MOS training.

Requesting agency: USCONARC  
Personnel: Dr. Willard  
Date: Sep 64  
Days expended: 2

13. Planned research in night operations, night devices, and field studies involving detection and recognition was discussed with visitors from the Research Analysis Corp. and from Frankford Arsenal.

Requesting agencies: Research Analysis Corporation; Frankford Arsenal  
Personnel: Dr. Easley  
Date: Sep 64  
Days expended: 1.5

14. Task RECON personnel provided information on:
- a. Programed training and operations for the armored cavalry platoon.
  - b. Job requirement lists for the scout observer for use in preparing Army Subject Schedules and Training Programs.
  - c. Army Training Tests and supplementary Training Programs.

Requesting agencies: 149th Armor Group (a); U.S. Army Armor School (b,c)  
Personnel: Lt. Col. Cook (Ret.), Mr. Wernick  
Dates: Oct 64; May 65; Jun 65  
Days expended: 1.5

15. Information was provided on estimates of the time required to stop and start tanks, make various turns, and fire the main gun in response to given stimuli.

Requesting agency: U.S. Army Combat Developments Command, Armor Agency  
Personnel: Mr. Schwartz  
Date: Nov 64  
Days expended: 1

16. Division personnel aided various agencies by:
- a. Supplying the Royal Canadian Infantry School with ARMORNITE training and testing tapes recorded for use in the study of ground surveillance radar training.

Requesting agency: Royal Canadian Infantry School through USCONARC  
Personnel: Mr. Allen  
Date: Sep 64  
Days expended: 5

- b. Giving advice on the design of studies in target detection and tank gunnery.

Requesting agency: Ohio State University Research Foundation through the U.S. Army Combat Developments Command, Armor Agency  
Personnel: Dr. Baker  
Date: Jun 65  
Days expended: 1

- c. Providing information on the effects of vibration (country driving) and confinement on tank crew performance.

Requesting agency: British Armor Staff, Washington, D.C.  
Personnel: Dr. Cannon  
Date: Oct 64  
Days expended: .5

### DIVISION NO. 3 (Recruit Training)

1. Considerable TAS in the high-level leadership area has been provided to several Army agencies by a staff member.

**Requesting agencies:** U.S. Military Academy; U.S. Army Security Agency Training Center and School; U.S. Army Infantry School  
**Personnel:** Gen. Sebree (Ret.)  
**Dates:** Jul 64-Jun 65  
**Days expended:** 225

2. Task CENTER personnel have been involved in activities connected with the Special Training and Enlistment Program (STEP).

a. Background information and materials and research proposals were prepared in anticipation of STEP.

b. A study was conducted of the performance of Category IV and other personnel undergoing Basic Combat Training (BCT) at Fort Dix, N.J., Fort Jackson, S.C., and Fort Ord, Calif. The results provided baseline information to be used in the development of training procedures under STEP. Two reports were prepared based on different analyses of the data.

**Requesting agencies:** USCONARC; Deputy Under Secretary of the Army for Personnel Management  
**Personnel:** Dr. Bialek, Dr. Showel, Dr. Goffard, Plr. Golub, Pvt. Yecker  
**Dates:** Sep 64-Jun 65 (a); Jan-Jun 65 (b)  
**Days expended:** 248 (a); 185 (b)

3. A member of Task NCO completed a project at Fort Jackson, S.C., to assist USCONARC in planning and testing the now established Drill Sergeant Course. Assistance was given in preparing materials for the Drill Sergeant School Commandant's Conference. A Consulting Report, "The Army Drill Sergeant Program: Some Effects as Reported by Basic Combat Trainees," was prepared.

**Requesting agency:** USCONARC  
**Personnel:** Dr. Hood  
**Dates:** Continued from FY 64-Mar 65  
**Days expended:** 119

4. The Task TRANSITION staff continued participation with USCONARC personnel in the revision of ATT 21-2, Individual Proficiency in Basic Military Subjects, the end-of-cycle BCT proficiency test. Measures of BCT proficiency (Physical Combat Proficiency Test, Marksmanship, and ATT 21-2) were collected on a 25% sample from each of seven Army training centers, and the data are being analyzed to aid in establishment of standard norms for these measures. Special data analyses have been prepared for consideration of a program for accelerated promotion of outstanding BCT graduates. Effects of reception station experience upon receptee attitudes were studied.

**Requesting agency:** USCONARC  
**Personnel:** Dr. Caylor, Plc. Nutter, Plc. Klassen, SP 4 Fox  
**Dates:** Continued from FY 64-Jan 65  
**Days expended:** 32

5. Task NCO staff advised various Army agencies on the NCO Training and Leadership Preparation Program.

**Requesting agencies:** NCO Academies at Fort Lewis, Wash., and Fort Bliss, Tex.; representatives of the Canadian and Swedish Armies  
**Personnel:** Dr. Hood  
**Dates:** Sep 64-Jun 65  
**Days expended:** 1.5

6. The staff of Task RIFLEMAN:

- a. Furnished technical advice on the preparation of a script for an official U.S. Army infantry training film.
- b. Functioned as advisors on implementation of the Task products. In addition, they reviewed draft Army Subject Schedules 7-111, 7-112, and 7-114.
- c. Advised on Combat Firing and Close Combat courses.

*Requesting agencies:* U.S. Army Pictorial Service, U.S. Army Infantry School (a);  
USCONARC (b); U.S. Army Infantry School (c)  
*Personnel:* Dr. Ward, Col. Fooks (Ret.)  
*Dates:* Aug-Dec 64 (a,b); Jun 65 (c)  
*Days expended:* 16.5 (a); 12 (b); 2.5 (c)

7. A staff member reviewed and commented on Army Subject Schedule 11-051, MOS Technical Training and Refresher Training of Radio Operators.

*Requesting agency:* USCONARC  
*Personnel:* Dr. Goffard  
*Date:* Mar 65  
*Days expended:* 1

8. Information on recruit training and the confidence development program was provided to the Nursing Service Staff.

*Requesting agency:* Fort Ord  
*Personnel:* Dr. McFann  
*Date:* Mar 65  
*Days expended:* .5

9. A staff member provided information research instruments that might be used in collecting information on recruit attitudes toward basic training.

*Requesting agency:* USCONARC  
*Personnel:* Dr. McFann  
*Date:* Feb 65  
*Days expended:* .5

10. Material from Task NCO was provided that would be applicable to the Oak Glen Forestry Youth Camp trainee leader program.

*Requesting agency:* Oak Glen Forestry Youth Camp  
*Personnel:* Dr. Shawel  
*Date:* Dec 64  
*Days expended:* .5



## DIVISION NO. 4 (Infantry)

1. A technical human factors evaluation was made of some equipment used in the training of airborne troops.

*Requesting agency:* Director of Instruction,  
U.S. Army Infantry School  
*Personnel:* Dr. Olmstead, Mrs. Lee  
*Dates:* Sep 64-Feb 65  
*Days expended:* 59.5

2. Psychological and human factors literature was surveyed to assist in developing human factors requirements for a Tactical Individual Transporter (TINT) at low ambient temperatures.

*Requesting agency:* U.S. Army Combat Developments Command,  
Infantry Agency  
*Personnel:* Dr. Fox, Mr. Powers  
*Date:* Apr 65  
*Days expended:* 41

3. A study was made of the extent to which wind-chill factors affect injuries sustained in qualifying parachute jumps.

*Requesting agency:* Airborne Dept., U.S. Army Infantry School  
*Personnel:* Dr. Olmstead, Mrs. Lee  
*Dates:* Mar-Apr 65  
*Days expended:* 21

4. Task RIFLEMAN and Task LEAD personnel assisted in the evaluation of Small Arms Weapons Systems (SAWS).

*Requesting agency:* U.S. Army Combat Developments Command,  
Infantry Agency  
*Personnel:* Mr. Powers, Col. Kelly (Ret.)  
*Dates:* Mar-Jun 65 continuing  
*Days expended:* 85

5. Personnel of Task OFFTRAIN:

a. Helped emend the OFFTRAIN package prior to publication by USAIS.

b. Reviewed and commented on the draft revision of FM 22-100, Military Leadership.

c. Discussed the revising of the Canadian Army's NCO Leadership Training along the lines of the OFFTRAIN research.

*Requesting agencies:* Leadership Command, U.S. Army Infantry School (a);  
Company Tactics Department, U.S. Army Infantry School (b);  
Canadian Liaison Officer, U.S. Army Infantry Board (c)  
*Personnel:* Dr. Jacobs (a), Dr. Jacobs, Dr. Olmstead (b);  
Col. Kelly (Ret.), Dr. Olmstead (c)  
*Dates:* Jul 64-May 65 (a); Apr 65 (b); Jul 64 (c)  
*Days expended:* 10 [7 (a); 2.5 (b); .5 (c)]

6. A revised USACGSC Leadership Analysis Questionnaire was reviewed and comments submitted.

*Requesting agency:* U.S. Army Command and General Staff College  
*Personnel:* Dr. Jacobs  
*Dates:* Aug-Dec 64  
*Days expended:* 5

7. Instruction and diagnostic procedures of Trinity School, Columbus, Ga., were informally evaluated to determine their applicability to Army populations.

*Requesting agency:* Human Factors and Operations Research Division  
*Personnel:* Dr. George, Mr. Hook  
*Date:* Dec 64  
*Days expended:* 4.25

8. Division staff consulted with various departments of USAIS:

- a. A report was made on the teaching machine being developed by Division No. 4.
- b. Assistance was given the Evaluation and Implementation Committee in the review of educational TV materials.
- c. Discussions were held on the evaluation of USAIS's role in the advancement of infantry doctrine and equipment.
- d. A consultation was held on the Student Evaluation System used by the Ranger Department.
- e. Research on night operations and limited visibility was reviewed for the Research Analysis Corp. staff.
- f. Technical data and advice were provided on the use of televised instruction in a Basic Radio Maintenance Course.

*Requesting agencies:* Communications-Electronics Department, U.S. Army Infantry School (a,f); Director of Instruction, U.S. Army Infantry School (b,e); Deputy Assistant Commandant, U.S. Army Infantry School (c); Ranger Department, U.S. Army Infantry School (d)  
*Personnel:* Mr. Singleton (a); Dr. Jacobs, Dr. Fox (b,f); Dr. Jacobs, Col. Kelly (Ret.) (c,e); Lt. Col. Brown (Ret.) (d)  
*Dates:* May 65 (a,d); Sep 64, (b,e); Jul-Aug 64 (c); Mar-Apr 65 (f)  
*Days expended:* 11.5 [4 (a); 1 (b); 2 (c); 1 (d,f); .5 (e)]

9. Task RIFLEMAN staff:

- a. Discussed human factors and technical implications of devices and training in land navigation.
- b. Furnished detailed quantitative data pertinent to the current mission of developing training directives governing AIT for infantry soldiers.
- c. Discussed the rationale for the organization of the infantry rifle squad and platoon.

*Requesting agencies:* U.S. Army Limited War Laboratory (a); Weapons Department, U.S. Army Infantry School (b); Platoon Tactics Command, U.S. Army Infantry School (c)  
*Personnel:* Mr. Powers, Col. Kelly (Ret.), Lt. Col. Brown (Ret.) (a); Dr. Olmstead, Dr. Fox, Col. Kelly (Ret.), Lt. Col. Brown (Ret.) (b); Col. Kelly (Ret.), Lt. Col. Brown (Ret.) (c)  
*Dates:* Nov 65 (a,b); Jul 64 (c)  
*Days expended:* 5.5 [3.5 (a); 1.5 (b); 5 (c)]

10. A discussion was held on research in rifle marksmanship.

*Requesting agency:* Director of Training and Authorization, Assistant Chief of Staff for Force Development, Department of the Army  
*Personnel:* Dr. Jacobs, Col. Kelly (Ret.)  
*Date:* Jun 65  
*Days expended:* 2

11. In connection with Tasks RIFLEMAN, UNIFECT, MOONLIGHT, and TRAIN-FIRE, representatives of the Swedish Research Institute of National Defense were briefed on the design and measurement of combat firing experiments dealing particularly with the relative effectiveness of infantry and armor small-unit combat.

**Requesting agency:** Office of the Chief of Research and Development,  
Department of the Army  
**Personnel:** Dr. Jacobs, Dr. George, Col. Kelly (Ret.)  
**Date:** Oct 64  
**Days expended:** 2

12. Task ROCOM personnel discussed:
- a. Problems associated with the U.S. Army ROTC program.
  - b. The Task methodology with an ASA representative.

**Requesting agencies:** Education Advisor, U.S. Army Infantry School (a);  
Director of Instruction, U.S. Army Infantry School (b)  
**Personnel:** Dr. Jacobs, Mr. Powers, Mr. Kotase (a);  
Dr. Jacobs, Mr. Powers (b)  
**Dates:** Jul 64 (a); Jun 65 (b)  
**Days expended:** 2 (1.5 (a); 5 (b))

13. The military advisor of the Division held several brief consultations with USAIS committees and departments at Fort Benning, Ga. These included:
- a. A conference with U.S. Army Combat Developments Command, Infantry Agency, personnel on developing a method to assess combat effectiveness of infantry battalions to permit comparison of the combat worth of various units.
  - b. A discussion of infantry small-unit tactical doctrine with the Company Tactics Department.
  - c. A discussion with the Leadership Committee on the problem of motivating the infantry rifleman.
  - d. A consultation on antiaircraft marksmanship training for infantry weapons with the Weapons Department.
  - e. A conference on the "Evaluation of the Role of USAIS in the Advancement of Infantry Doctrine and Materiel" with Special Studies, USAIS.
  - f. A discussion of the infantryman's combat problems and the differences between them and the civilian marksmanship area with the Weapons Department.
  - g. Consideration, with the Director of Instruction, of training in infantry subjects required by the ordnance soldier and unit, stressing defensive capability as well as capability to operate in limited-scope offensive patrols.
  - h. Furnishing information on superseded machine gun techniques in connection with current studies at the Company Tactics Department, also briefing new instructors.
  - i. Commenting on a USAIS project dealing with measurement of the effect of suppressing fire.
  - j. A conference on a study concerning the potential of rifle tracer ammunition both in Defense and Offense Weapons Departments.
  - k. A consultation on a problem related to the organization and weapons of the infantry rifle squad and platoon and the tactical problems involved with the Company Tactics Department.

**Requesting agency:** U.S. Army Infantry School  
**Personnel:** Col. Kelly (Ret.)  
**Dates:** Jul 64-Jun 65  
**Days expended:** 7

14. Conferences were held on:

- a. Past and future problems in the organization of foot and motor infantry.
- b. Reactions to the technical content of U.S. Army Personnel Research Office's Task Critical Situations research.
- c. The training implications, human factors aspects, and current state-of-the-art of the individual rocket belt produced by Bell Aerosystems Co.

**Requesting agency:** U.S. Army Combat Developments Command,  
Infantry Agency  
**Personnel:** Col. Kelly (Ret.) (a); Dr. Jacobs (b);  
Mr. Powers (c)  
**Dates:** Jul 64-Jun 65 (a); Sep 64 (b); Aug 64 (c)  
**Days expended:** 8.5 (7 (a); 1 (b); .5 (c))

15. A conference was attended on a study being conducted by Cornell Aeronautical Laboratory, Cornell University, on "Probable Attrition of Army Air Vehicles in Varying Combat Environments."

**Requesting agency:** U.S. Army Combat Developments Command  
**Personnel:** Dr. Jacobs, Col. Kelly (Ret.), Lt. Col. Brown (Ret.)  
**Date:** Jun 65  
**Days expended:** 1

16. Services performed for USAIC were:

- a. Participation in a discussion of an Air Force research project.
- b. An address on leadership given for the Middle Management Workshop.
- c. A consultation held on the human factors involved in the shoulder-fired rocket launcher.

**Requesting agencies:** Information Office, U.S. Army Infantry Center (a);  
Civilian Personnel Section, U.S. Army Infantry  
Center (b); Douglas Aircraft (sponsored by  
U.S. Army Infantry Center) (c)  
**Personnel:** Dr. Jacobs (a); Dr. Olmstead (b);  
Col. Kelly (Ret.); Lt. Col. Brown (Ret.) (c)  
**Dates:** Apr 65 (a); Jun 65 (b); Jul 64 (c)  
**Days expended:** 2 (1.5 (a,b); 1 (c))

17. Division personnel also:

- a. Made a presentation at a conference on leadership training at the Canadian Forces Headquarters.

**Requesting agency:** Department of National Defence, Canadian Staff  
**Personnel:** Dr. Jacobs  
**Dates:** Mar-Apr 65  
**Days expended:** 6

- b. Provided assistance on the Air Force Leadership Manual.

**Requesting agency:** U.S. Air Force Air University  
**Personnel:** Dr. Jacobs  
**Date:** May 65  
**Days expended:** 1

## DIVISION NO. 5 (Air Defense)

1. The major TAS commitment of Division No. 5 was made in connection with ES-31, Aircraft Recognition. An experimental test of soldiers' ability to detect and identify low-flying aircraft was made on the Dona Ana Range, Fort Bliss, Tex., producing information requested by USACDCADA. These data were checked and amplified by extensive observations of low-level, high-speed test flights by Joint Task Force 2 over the Tonapah, Nev., test range.

**Requesting agencies:** U S. Army Air Defense Center; U.S. Army Combat  
Developments Command, Air Defense Agency;  
U. S. Army Air Defense Board  
**Personnel:** Dr. Wright, Mr. Frederickson, Mr. Finkett  
**Dates:** Jan-Jun 65 continuing  
**Days expended:** 158

2. Data were analyzed and a report was written on the implications of certain concepts from the theoretical literature for teaching fixed-procedure tasks.

**Requesting agency:** Deputy Chief of Staff for Individual Training, USCONARC  
**Personnel:** Dr. Cox, Mr. Boren, Mrs. Harris  
**Dates:** Aug-Sep 64  
**Days expended:** 35.5

3. Task RINGER personnel reviewed course materials, recommended training devices, prepared a plan for use of graphic aids and devices, and integrated these into the training program for MOS 179, Nike Hercules Air Defense Fire Combat Crewman. A Consulting Report, "Feasibility Study of Substituting Training Devices for Tactical Equipment in Advanced Individual Training for MOS 179," was also written.

**Requesting agency:** 1st AD Guided Missile Brigade, Fort Bliss, Tex.  
**Personnel:** Dr. Cox  
**Dates:** Sep-Nov 64  
**Days expended:** 32

4. A study was made to provide information on the minimum amount and kind of mathematical skills required for success in the Basic Electronics Course presented by USAADS. A Consulting Report, "A Study of Mathematical Skills Requirements for Basic Electronics in the U.S. Army Air Defense School," was prepared.

**Requesting agency:** U.S. Army Air Defense School  
**Personnel:** Dr. Cox, Mr. Boren  
**Dates:** Aug-Sep 64  
**Days expended:** 17

5. A test was made using the filter method of PPI adjustment (TR 85) on Hawk radars by staff members of VIGIL II.

**Requesting agency:** U.S. Army Air Defense School  
**Personnel:** Dr. Baldwin, Dr. Wright  
**Date:** Aug 64  
**Days expended:** 5

6. Staff members of Tasks SAMOFF and RINGER advised on training devices to be used for the instruction of officer personnel on the Nike Hercules fire control equipment.

Requesting agency: U.S. Army Air Defense School  
Personnel: Dr. Ammerman, Dr. Cox, Dr. Haverland  
Dates: Oct-Nov 64  
Days expended: 4.5

7. Illumination survey of Nike Hercules radar van was prepared.

Requesting agency: U.S. Army Air Defense Board  
Personnel: Mr. Frederickson, Mr. Fosselt  
Date: Feb 65  
Days expended: 4

8. Staff members of Task SAMOFF reviewed and commented on draft USAADS Pamphlet 350, "A Guide to the Preparation and Use of Performance Objectives."

Requesting agency: U.S. Army Air Defense School  
Personnel: Dr. Ammerman, Dr. Melching  
Date: Jul 64  
Days expended: 2.5

9. Reviews of several other documents not related to Tasks were performed: Army Subject Schedules 44-5, Reconnaissance, Selection, and Occupation of Position for Air Defense Artillery Units, 44-181.1, MOS Technical Training of Defense Acquisition Radar Crewman, 44-174, MOS Technical Training of U.S. Army Air Defense Missile Crewman, and 44-176, MOS Technical Training of U.S. Army Air Defense Missile Fire Control; MOS 430, Guided Missile Mechanical Repair Helper, FM 44-15, Air Defense Crewman Individual Training Guide; Small Development Requirement (Training Devices) for Nike X.

Requesting agencies: U.S. Army Air Defense School; USCONARC  
Personnel: Dr. Rogers, Dr. Melching, Dr. Baldwin  
Dates: Jul 64, Jan-Mar 65  
Days expended: 7

10. Personnel of Task HAWKEYE assisted in the development of training objectives for MOS 221, Hawk Air Defense Continuous Wave Radar Mechanic, basic electronics.

Requesting agency: U.S. Army Air Defense School  
Personnel: Mr. Christensen, Mrs. Harris  
Date: Jul 64  
Days expended: 1

11. The staff of ES-32, Motivation in Technical Training, discussed study hall procedures with school instructors.

Requesting agency: U.S. Army Air Defense School  
Personnel: Dr. Kubala, Mr. Christensen  
Date: Feb 65  
Days expended: 1

## DIVISION NO. 6 (Aviation)

1. The largest time commitment in TAS at Division No. 6 was a study, continuing into FY 66, of the USAAVNS academic examination and test scale procedure.

Requesting agency: Assistant Commandant, U.S. Army Aviation School  
Personnel: Dr. Dawkins, Mr. Goy, Dr. Prophet, Mr. Duffy  
Dates: Jan-Jun 65 continuing  
Days expended: 156

2. Another continuing TAS activity is the Division's responsibility for the human factors portion of USACDC's operational suitability evaluation of industry proposals for the Army's Advanced Aerial Fire Support System (AAFSS).

Requesting agency: U.S. Army Combat Developments Command,  
Aviation Agency  
Personnel: Dr. Wright  
Dates: Oct 64-Mar 65 continuing  
Days expended: 47.75

3. The staff of ES-38, Warrant Officer Aviator, performed the following TAS:  
a. Provided USAPHS with comments concerning proposed changes in warrant officer training and methods for evaluating them.  
b. With Task TRADER personnel, made arrangements for transporting the cockpit procedures trainer to Fort Wolters, Tex., for use by USAPHS in warrant officer training. A program of instruction for use with the trainer was also supplied.

Requesting agency: U.S. Army Primary Helicopter School  
Personnel: Dr. Prophet, Dr. Boylea, Dr. Caro, Mr. Boyd,  
Capt. Kidwell (a); Mr. Boyd, Lt. Col. Richm (Ret.) (b)  
Dates: Dec 64 (a); Sep 64 (b)  
Days expended: 14 (12 (a); 2 (b))

4. Task LOWENTRY personnel have undertaken a number of TAS activities:  
a. For the U.S. Army Combat Developments Command, Aviation Agency:  
(1) Reviewed correspondence and documents relative to altimeter display decision (AIMS) and submitted comments.  
(2) Provided Litton Industries, Inc., with information concerning requirements for integrated navigation systems.  
(3) Performed evaluation and provided recommendations on the use of aeronautical navigation charts.  
b. At the request of the Department of Defense and the Army Map Service (through the Director of Instruction, U.S. Army Aviation School), participated in a discussion of requirements for new Army aviation maps.  
c. Provided Research Analysis Corp. with information concerning visual search processes, navigational techniques, and development and quantification of Army aviation system requirements in the navigational and surveillance areas.  
d. Provided target location information to the Applied Physics Laboratory, The Johns Hopkins University.  
e. Provided the U.S. Army John F. Kennedy Center for Special Warfare, Aviation Section, Fort Bragg, N.C., with information concerning doppler navigation devices and directed them to further sources of information.

f. Through Aerospace Medical Research Laboratories, provided Honeywell Inc. with information on navigation display requirements.

g. Provided information and materials for PLATS navigation system to the General Electric Co.

<b>Personnel:</b>	Dr. Wright (a-1, a-2); Lt. Col. Pauley (Ret.) (a-3); Dr. Wright, Lt. Col. Pauley (Ret.) (b); Dr. Thomas, Dr. Wright (c); Dr. Prophet, Dr. Wright, Dr. Gray (d); Dr. Wright, Lt. Col. Pauley (Ret.) (e); Dr. Thomas, Dr. Wright (f); Dr. Wright (g)
<b>Dates:</b>	Jun 65 (a-1); Aug 64 (a-2); Mar 65 (a-3); Aug 64 (b); Apr 65 (c); Nov 64 (d); Mar 65 (e); Jul 64 (f); May 65 (g)
<b>Days expended:</b>	12.5 [4 (a-1); 1 (a-2); 1 (a-3); 2 (b); 2 (c); 1 (d); 1 (e); .25 (f); .25 (g)]

5. Division personnel supplied advice to various contractors.

a. Through the U.S. Army Combat Developments Command, Aviation Agency:

(1) Provided representatives of the Sikorsky Aircraft Division, United Aircraft Corp. with information in regard to Army aviation training policies and practices.

(2) Provided Cornell Aeronautical Laboratory with information from Tasks HELFIRE and LOWENTRY for a study on aircraft attrition.

(3) Provided the Boeing Co. with information from Task LOWENTRY and the man-machine match study on crew performance at low altitudes in connection with a proposed airborne aerial fire support system.

(4) Discussed with the General Electric Co. the capability of the aerial observer and light weapons helicopter as well as navigation display requirements for COIN aircraft.

(5) Provided Honeywell Inc. with information and a bibliography concerning training device research.

(6) Provided Kaman Aircraft Corp. with information on fidelity requirements in cockpit procedures trainers.

(7) Consulted with Lockheed Aircraft Corp. on human factors requirements for the AAFSS.

b. At the request of the U.S. Army Board for Aviation Accident Research (USABAAR) discussed with AAFSS contractors aspects of the human factors design of the AAFSS vehicle.

c. Through the Surgeon General's Office:

(1) Provided information to North American Aviation, Inc., in regard to a new concept for an eye movement camera in connection with a research proposal being submitted to the Surgeon General's Office.

(2) Provided information on light helicopter tasks for use in connection with Army-sponsored activities of the American Institutes for Research in the Behavioral Sciences.

d. Through Aerospace Medical Research Laboratories, provided Ohio State University with Task LOWENTRY information on measurement of effects of stress on performance during low-level flight.



e. Provided Vertol Division, Boeing Co., with information on the gross weight limits with respect to single-engine performance in multi-engine helicopters.

**Personnel:** Dr. Wright, Dr. Caro, Dr. Thomas, Mr. Alkov,  
Lt. Col. Blohm (Ret.) (a-1); Dr. Prophet,  
Dr. Thomas, Dr. Wright, Capt. Kidwell (a-2);  
Dr. Prophet, Dr. Thomas, Dr. Wright (a-3);  
Dr. Thomas, Dr. Wright (a-4); Dr. Prophet (a-5, a-6);  
Dr. Wright (a-7, b, c-1); Dr. Prophet, Dr. Wright (c-2);  
Dr. Wright (d, e)  
**Dates:** May 65 (a-1); Jul-Aug 64 (a-2); Aug 64 (a-3);  
Sep 64 (a-4); Jul 64 (a-5); Aug 64 (a-6); Sep 64 (a-7);  
Apr 65 (b); Jan 65 (c-1, c-2); Aug 64 (d); Apr 65 (e)  
**Days expended:** 10 (a-1); 1 (a-2); .5 (a-3, a-4); .25 (a-5, a-6, a-7);  
2.5 (b); .75 (c-1); .5 (c-2); .25 (d, e)

6. For the Department of Tactics and the Rotary Wing Department of USAAVNS, and for USACDCAVNA, Division personnel reviewed Small Development Requirements (SDR) for a remote scoring target device for aerial gunner, UH-1 instrument trainer, and CH-47 flight simulator.

**Requesting agencies:** Department of Tactics, U.S. Army Aviation School;  
Rotary Wing Department, U.S. Army Aviation School;  
U.S. Army Combat Developments Command,  
Aviation Agency  
**Personnel:** Dr. Prophet, Dr. Thomas, Dr. Caro, Dr. Wright,  
Mr. Schulz, Lt. Col. Blohm (Ret.)  
**Dates:** Apr-Jun 65  
**Days expended:** 10

7. The staff of Task OBSERVE performed the following TAS activities:

a. Provided observer training materials for use by the U.S. Army Combat Developments Command Experimentation Center.

b. For the Department of Tactics, U.S. Army Aviation School:

(1) Assisted in setting up a Program of Instruction for students going to Vietnam.

(2) Provided the U.S. Marine Corps, Quantico, Va., with information on low-level navigation and aerial observation techniques and requirements.

(3) Coordinated revisions in FM 1-80, Aerial Observer Training.

(4) Furnished information and training materials for use in target location training.

(5) Discussed OBSERVE material relevant to transfer of that training to side gunner training for helicopter missions.

c. Assisted the 2d Division, Aviation Battalion, Fort Benning, Ga., in locating a duplicate set of OBSERVE I slides at Fort Benning for use in conducting a course in aerial observation, and provided a slide key for use with the set.

d. Provided the Department of Interior (through the Director of Instruction, U.S. Army Aviation School) with a briefing on OBSERVE I with a view to possible application of aerial observation to Wildlife Management.

e. Provided the Stanford Research Institute, Stanford University, with information available in the Division on square mil size for targets of detectability, and suggested other sources of information.

f. Provided the 11th Air Assault Division with information and training materials for a four-hour course in aerial observation.

g. Provided the Grumman Aircraft Engineering Corp. with film and other material pertinent to using video tape to locate targets on a map.

**Personnel:** Lt. Col. Blohm (Ret.), Pfc. Reese (a);  
Dr. Dawkins (b-1, b-2); Dr. Thomas (b-3, b-4);  
Dr. Dawkins (b-5); Dr. Thomas,  
Lt. Col. Blohm (Ret.) (c); Dr. Thomas (d, e, f, g)  
**Dates:** Sep 64 (a); Jul 64 (b-1, b-2); Sep 64 (b-3);  
Oct 64 (b-4); Nov 64 (b-5); Dec 64 (c, d);  
Jan 65 (e); Apr 65 (f); Jun 65 (g)  
**Days expended:** 6 [1.5 (a); 25 (b-1, b-2, b-3, b-4); .5 (b-5, c, d, e, f); 1 (g)]

8. The following TAS activities were performed for the U.S. Army Aviation School:

a. For the Director of Instruction:

(1) Reviewed performance objectives for Helicopter Instrument Flight Course in connection with proposed programmed instruction for a course.

(2) Consulted with a School committee on DA-directed study of rotary wing training. Prepared report on transfer of training between fixed and rotary wing training, and between fixed and rotary wing flying.

(3) Provided information on the Fort Wolter's system of objective proficiency measurement and quality control system.

b. Provided the Training Aids and Devices Board with recommendations on the group trainer concept and procurement of the C-V-2 operational procedures trainer.

c. For the Department of Tactics:

(1) Provided comments on the evaluation report of the 11th Air Assault Division on the automatic pilot installed in the Caribou aircraft.

(2) Discussed the Small Development Requirements (SDR) for development of a classified item of equipment.

**Personnel:** Dr. Prophet, Maj. Jolley (Ret.) (a-1); Dr. Prophet (a-2);  
Dr. Dawkins, Dr. Gray, Mr. Duffy (a-3); Dr. Bayles,  
Mr. Boyd (b); Dr. Thomas (c)  
**Dates:** Jul 64 (a-1); Sep 64 (a-2); Feb 65 (a-3);  
Oct 64 (b); Nov 64 (c)  
**Days expended:** 5.5 [2 (a-1); 2 (a-2); .25 (a-3); .5 (b); .25 (c-1); .5 (c-2)]

9. TAS activities were provided for the USACDCAVNA as follows:

a. Reviewed and commented on a classified draft of a proposed Qualitative Materiel Requirement (QMR) for the Interim Surveillance and Target Acquisition Aircraft System.

b. Provided information concerning ways of converting circular error probability scores.

c. Provided information on aspects of crew confidence in bullet detection devices as related to the accuracy specifications for this type of device.

d. Reviewed and commented on a letter from the U.S. Army Missile Command, Redstone Arsenal, on eyecup design for use in Army helicopters.

e. Reviewed and commented on a research proposal and a proposed QMR on an automated electrical maintenance and diagnostic system for Army aircraft.

**Requesting agency:** U.S. Army Combat Developments Command,  
Aviation Agency  
**Personnel:** Dr. Wright (a, c, d, e); Dr. Wright, Dr. Gray (b)  
**Dates:** May 65 (a); Aug 64 (b, c); Apr 65 (d); May 65 (e)  
**Days expended:** 4.25 [1.5 (a); 2 (b); .25 (c, d, e)]

10. The staff of Task HELFIRE participated in the following TAS activities:

a. For the Department of Tactics, U.S. Army Aviation School:

(1) Provided remote scoring targets.

(2) Provided information on nap-of-the-earth films and discussed the use of cameras on UH-1 and OH-13 helicopters.

(3) Furnished material developed under HELFIRE II for adaptation to use in navigation training.

(4) Presented briefing on HELFIRE II and provided test booklets for possible use.

(5) Provided human factors assistance with regard to sighting problems encountered with the XM-5 weapon system.

b. For the U.S. Army Combat Developments Command, Aviation Agency:

(1) Supplied the Planning Research Corp. with information on AAFSS mission factors and their coordination with other systems requirements.

(2) Provided human factors input for SDR for gunnery sight.

c. Provided the Hughes Aircraft Co. with information on weapons system reaction time.

<b>Personnel:</b>	Lt. Col. Blohm (Ret.) (e-1); Capt. Kidwell (e-2); Mr. Schulz (e-3); Lt. Col. Blohm (Ret.) (e-4); Dr. Wright (e-5); Lt. Col. Blohm (Ret.) (b-1); Dr. Dawkins (b-2); Lt. Col. Blohm (Ret.), Mr. Schulz (c)
<b>Dates:</b>	Jul 64 (e-1); Nov 64 (e-2); Dec 64 (e-3, e-4); May 65 (e-5); Jun 65 (b-1); Jul 64 (b-2); Feb 65 (c)
<b>Days expended:</b>	4 [.5 (e-1, e-2); .25 (e-3, e-4, e-5); 1.5 (b-1); .25 (b-2); .5 (c)]

11. Task LIFT personnel provided TAS as follows:

a. For the U.S. Army Aviation School:

(1) Provided the Fixed Wing Department with information and materials on flight training quality control.

(2) Provided the Rotary Wing Department with information on application of quality control methods to Helicopter Instrument Flight Course.

(3) Provided the Director of Instruction with information concerning measurement techniques required for evaluation of length of rotary wing instrument training.

b. Provided the 11th Air Assault Division with information concerning measurement of flight performance.

<b>Personnel:</b>	Dr. Prophet, Mr. Duffy (e-1); Lt. Col. More, Dr. Prophet, Mr. Duffy (e-2); Dr. Prophet (e-3, b)
<b>Dates:</b>	Apr 65 (e-1); Nov 64 (e-2); Jan 65 (e-3); Jul 64 (b)
<b>Days expended:</b>	4 [2.5 (e-1); 1 (e-2); .25 (e-3, b)]

12. A member of the staff reviewed and provided comments on proposed MIL-STD-000, Aircrew Station Geometry for Fixed Wing, Helicopter, and V/STOL Aircraft, for the Joint Aircrew Station Standardization Panel.

<b>Requesting agency:</b>	Joint Aircrew Station Standardization Panel, U.S. Army Board for Aviation Accident Research
<b>Personnel:</b>	Dr. Wright
<b>Date:</b>	Feb 65
<b>Days expended:</b>	3

13. Provided the Director of Army Aviation, ACSFOR, with information pertinent to a study of Army rotary wing aviator training.

<b>Requesting agency:</b>	Director of Army Aviation, Office of the Assistant Chief of Staff for Force Development
<b>Personnel:</b>	Dr. Prophet, Dr. Wright
<b>Date:</b>	Oct 64
<b>Days expended:</b>	2.25

14. The staff of ES-37, Aviation in Limited Visibility, provided information to the U.S. Army Engineering Research and Development Laboratories on the relationship between Task OBSERVE material and target identification simulation in the laboratory.

Requesting agency: U.S. Army Engineering Research and  
Development Laboratories  
Personnel: Dr. Dawkins  
Date: Oct 64  
Days expended: .5

15. Discussed the nature of human factors evaluation of LOH aircraft with USAHEL.

Requesting agency: U.S. Army Human Engineering Laboratories,  
Aberdeen Proving Grounds  
Personnel: Dr. Wright  
Date: Aug 64  
Days expended: .5

16. Through the Aviation Test Board, consulted with the 11th Air Assault Division on experimental design and performance measures for evaluation of the ASW-12 autopilot for Caribou aircraft.

Requesting agency: 11th Air Assault Division through the  
Aviation Test Board  
Personnel: Dr. Wright  
Date: Sep 64  
Days expended: .5

17. Provided the 3576th Student Squadron, Vance AFB, with information on various types of objective measurements used to evaluate Army aviator performance.

Requesting agency: 3576th Student Squadron, Vance AFB  
Personnel: Dr. Thomas, Maj. Jolley (Ret.)  
Date: Jun 65  
Days expended: .5

## DIVISION NO. 7 (Language and Area Training)

1. ES-40 personnel participated in advisory and survey activities concerning current status of the KATUSA (Korean Augmentation to the U.S. Army) program.

Requesting agency: Eighth U.S. Army, Korea  
Personnel: Dr. McCrery, Dr. Klores  
Dates: Oct 64-Jun 65  
Days expended: 70

2. An evaluation and report were completed on the potential of "sleep learning" as a method for improving military training.

Requesting agency: Defense Language Institute  
Personnel: Dr. Rocklyn, Mr. Montague  
Dates: Apr-Jun 65  
Days expended: 29

3. A review and report were completed on the implication of the total immersion teaching method.

Requesting agency: Defense Language Institute  
Personnel: Dr. Rocklyn, Mr. Montague, Dr. Fika  
Dates: Jun 65  
Days expended: 8

4. Assistance was given in designing a survey of English language training provided to foreign students for attendance at Continental United States schools.

Requesting agency: Defense Language Institute  
Personnel: Dr. Brown, Dr. Klores, Dr. Hoehn  
Dates: Aug 64  
Days expended: 4

5. A review and evaluation was made of a DLI study on the effect of increasing the Army Language Aptitude Test (ALAT) cutoff score at DLI, West Coast Branch.

Requesting agency: Defense Language Institute  
Personnel: Dr. Rocklyn  
Dates: Nov 64  
Days expended: 2

6. Assistance was provided to determine the usefulness of the Modern Language Aptitude Test (MLAT) and ALAT for selection of military language trainees.

Requesting agency: Defense Language Institute  
Personnel: Dr. Brown, Dr. Rocklyn  
Dates: Jun 65  
Days expended: 2

7. A staff member revised a study report of differences in officer and enlisted ALAT scores and their roles in predicting achievement on the Army Language Proficiency Test.

Requesting agency: Defense Language Institute  
Personnel: Dr. Rocklyn  
Dates: Aug 64  
Days expended: 1

8. Preliminary and partial reports of DLI training methodology were prepared.

Requesting agency: Academic Advisor,  
Defense Language Institute  
Personnel: Dr. Fiks, Dr. Brown  
Date: Mar 65  
Days expended: 1

9. A discussion was held on a U.S. Army Security Agency requirement of foreign language proficiency maintenance.

Requesting agency: Defense Language Institute  
Personnel: Dr. Fiks, Dr. Hoehn  
Date: Feb 65  
Days expended: .5

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REPORT ON TECHNICAL ADVISORY  
SERVICES, FISCAL YEAR 1965

Human Resources Research Office